

# PATENT ABSTRACTS OF JAPAN

(11)Publication number : **08-321739**

(43)Date of publication of application : **03.12.1996**

(51)Int.Cl.

H03H 9/145  
H03H 9/64

(21)Application number : **07-126161**

(71)Applicant : **MATSUSHITA ELECTRIC IND CO LTD**

(22)Date of filing : **25.05.1995**

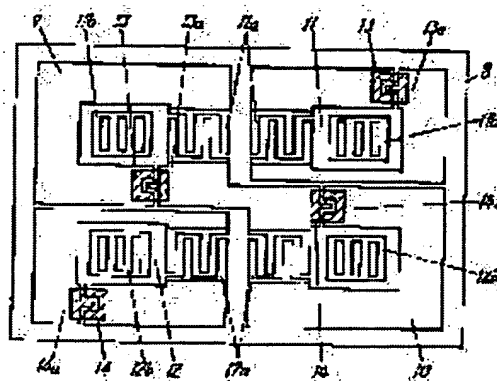
(72)Inventor : **MATSUO SATOSHI  
TAKADA MASAHIRO  
MITA NARUHIRO**

## (54) SURFACE ACOUSTIC WAVE FILTER

(57)Abstract:

PURPOSE: To prevent electrostatic breakdown due to application of static electricity by forming a thin film resistor on an anti-static short-circuit resistor.

CONSTITUTION: Anti-static electrodes 13a, 14a are provided on an input electrode 9 and an output electrode 10 on the surface of a piezoelectric substrate 8 and resistive thin films 13, 14 are formed on them as anti-static short-circuit resistors. Through a constitution above, even when static electricity is applied to the input output electrodes 9, 10 for plural number of times, the voltage is cancelled via the resistance thin films 13, 14, and electrostatic destruction of exciting sections 11a, 12a is prevented. Furthermore, the resistance thin films 13, 14 are preferably made of any of metallic boride, metallic carbide, metallic nitride, metallic oxide or metallic silicide.



## LEGAL STATUS

[Date of request for examination]

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]